

Application No.: 10/664,454
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Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A composite device for delivery of bioactive agents associated therewith to a site of implantation of said device comprising:
 - a first polymeric liner;
 - a second polymeric liner;

an intermediate structural member interposed between said first and said second polymeric liners, said intermediate structural member being defined by solid segments and openings therebetween such that the first liner is directly bonded to the second liner through said openings to form at least one pocket adjacent to said solid segments, said pocket being defined by said first and second liners and said solid segments the area of direct bonding together of said first liner and said second liner; and

a fluid containing a bioactive agent disposed within said pocket adjacent to said solid segments of said intermediate structural member.
2. (Original) The device of claim 1, wherein said intermediate structure member is a stent having a generally cylindrical tubular body defined by said solid segments and said openings therebetween, said tubular body defining an inner surface and an opposed outer surface.
3. (Original) The device of claim 2, wherein said first and said second liners are adheringly joined at a location substantially coextensive with said inner surface of said tubular body.

4. (Original) The device of claim 2, wherein said solid stent segments include opposed inner and outer segment surfaces defining said inner and outer surfaces of said tubular body and opposed side segment surfaces between said inner and outer segment surfaces.
5. (Original) The device of claim 4, wherein said second liner is conformed to at least a portion of said side segment surfaces.
6. (Original) The device of claim 2, wherein said first polymeric liner is positioned about said inner surface of said tubular body.
7. (Original) The device of claim 2, wherein said second polymeric liner is positioned about said outer surface of said tubular body.
8. (Original) The device of claim 1, wherein said first liner defines a fluid contacting luminal surface.
9. (Previously presented) The device of claim 1, wherein said bioactive agents in said pocket are selected from the group consisting of antimicrobial agents, growth factors, anti-coagulant substances, stenosis inhibitors, thrombo-resistant agents, antibiotic agents, anti-tumor agents, anti-proliferative agents, growth hormones, antiviral agents, anti-angiogenic agents, angiogenic agents, anti-mitotic agents, anti-inflammatory agents, cell cycle regulating agents, genetic agents, cholesterol-lowering agents, vasodilating agents, agents that interfere with endogenous vasoactive mechanisms, hormones, their homologs, derivatives, fragments, pharmaceutical salts and combinations thereof.
10. (Original) The device of claim 1, wherein said solid segments of said intermediate structural member are foreign bodies, forming said pockets between said first and second liners thereabout.

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11. (Previously Presented) The device of claim 1, wherein said fluid containing a bioactive agent is encapsulated in a polymeric matrix.
12. (Original) The device of claim 11, wherein said polymeric matrix containing said bioactive agent is a microparticle, microfiber or microfibril.
13. (Original) The device of claim 1, wherein said first liner and said second liner are independently selected from the group consisting of synthetic polymer, natural polymer or a combination thereof.
14. (Original) The device of claim 1, wherein at least one of said first or said second liners is porous.
15. (Original) The device of claim 13, wherein said synthetic polymer is selected from the group consisting of fluoropolymers, polyurethanes, polyurethane ethers, polyurethane esters, polyurethaneureas, polyimides, polyacrylamides, polyvinyl alcohols, polyphosphate esters, polyethersulfone, polyorthoesters, polyesters, siloxane polymers, silicones, polyvinylpyrrolidone, polyvinyl ethers, polyethers, polycarbonate, polyalkylenes, polyamides, polyanhydrides, polyethylene oxides, polyvinyl aromatics, polyhydroxybutyrate valerate, polyhydroxybutyrate-co-hydroxyvalerate, polyacrylic acid and derivatives and mixtures thereof.
16. (Original) The device of claim 13, wherein said synthetic polymer is ePTFE.
17. (Original) The device of claim 13, wherein said natural polymer is selected from the group consisting of fibrin, elastin, celluloses, collagen, gelatin, vitronectin, fibronectin, laminin, reconstituted basement membrane matrices, starches, dextrans, alginates, hyaluronic acid,

polylactic acid, polyglycolic acid, polypeptides, glycosaminoglycans, their derivatives synthetic analogs and mixtures thereof.

18. (Original) The device of claim 13, wherein said natural polymer and said synthetic polymer are biostable or bioabsorbable polymers.

19. (Original) The device of claim 2, wherein said stent is a biocompatible metal.

20. (Original) The device of claim 19, wherein said biocompatible metal is selected from the group consisting of stainless steel, platinum, gold, nitinol, tantalum and alloys thereof.

21. (Original) The device of claim 1, wherein said first and said second liners are of ePTFE.

22. (Original) The device of claim 14, wherein the porosity of said first liner is different from the porosity of said second liner.

23. (Original) The device of claim 21, wherein said first liner of ePTFE has pores of an internodal distance of greater than 40 microns and said second liner of ePTFE has pores of an internodal distance of less than 40 microns.

24. (Original) The device of claim 23, wherein said second liner exhibits a radial strength in excess of the radial strength of said first liner.

25. (Original) The device of claim 21, wherein said first liner of ePTFE has pores of an internodal distance of less than 40 microns and said second liner of ePTFE has pores of an internodal distance of greater than 40 microns

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26. (Original) The device of claim 25, wherein said first liner exhibits a radial strength in excess of the radial strength of said second liner.
27. (Currently Amended) A composite intraluminal device for delivery of bioactive agents associated therewith to a site of implantation of said device comprising:
an elongate stent having a generally cylindrical tubular body defined by solid segments and openings between said solid segments, said tubular body defining an inner surface and an opposed outer surface;
a first polymeric liner positioned about said inner surface of said tubular body;
a second polymeric liner positioned about said outer surface of said tubular body; said second polymeric liner being directly joined to said first liner through said stent openings to form at least one pocket adjacent to said solid segments, said pocket being defined by said first and second liners and said solid segments, the area of direct joining together of said first liner and said second liner; and
a fluid containing a bioactive agent disposed within said pocket adjacent to said solid segments of said tubular body.
- 28.- 47. (Canceled)
48. (Previously Presented) The device of claim 1, wherein said fluid substantially fills said pocket.
49. (Previously Presented) The device of claim 1, wherein said fluid is a gel.
50. (Previously Presented) The device of claim 27, wherein said fluid substantially fills said pocket.
51. (Previously Presented) The device of claim 27, wherein said fluid is a gel.

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52. (New) The device of claim 1, wherein said pocket has been pre-treated with a supplementary material to aid in incorporating said bioactive agent into said pocket.

53. (New) The device of claim 27, wherein said pocket has been pre-treated with a supplementary material to aid in incorporating said bioactive agent into said pocket.

54. (New) The device of claim 1, wherein said first liner and said second liner are directly bonded to each other at a location coextensive with or within an inner surface of the said structural member.

55. (New) The device of claim 27, wherein said first liner and said second liner are directly bonded to each other at a location coextensive with or within an inner surface of the said structural member.